



Corrigendum: Reductive Power Generated by *Mycobacterium leprae* Through Cholesterol Oxidation Contributes to Lipid and ATP Synthesis

Thabatta L. S. A. Rosa^{1†}, Maria Angela M. Marques^{2†}, Zachary DeBoard², Kelly Hutchins², Carlos Adriano A. Silva¹, Christine R. Montague³, Tianao Yuan⁴, Julio J. Amaral⁵, Georgia C. Atella⁶, Patrícia S. Rosa⁷, Katherine A. Mattos⁸, Brian C. VanderVen³, Ramanuj Lahiri⁹, Nicole S. Sampson⁴, Patrick J. Brennan², John T. Belisle², Maria Cristina V. Pessolani¹ and Marcia Berrêdo-Pinho^{1*}

¹ Laboratório de Microbiologia Celular, Instituto Oswaldo Cruz, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil, ² Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO, United States, ³ Department of Microbiology and Immunology, Cornell University, Ithaca, NY, United States, ⁴ Department of Chemistry, Stony Brook University, Stony Brook, NY, United States, ⁵ Laboratório de Química Biológica, Diretoria de Metrologia Aplicada às Ciências da Vida, Instituto Nacional de Metrologia, Qualidade e Tecnologia, Rio de Janeiro, Brazil, ⁶ Laboratório de Bioquímica de Lipídeos e Lipoproteínas, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, ⁷ Divisão de Pesquisa e Ensino, Instituto Lauro de Souza Lima, Bauru, Brazil, ⁸ Departamento de Controle de Qualidade, Instituto de Tecnologia em Imunobiológicos, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil, ⁹ Department of Health and Human Services, Health Resources and Services Administration, Healthcare Systems Bureau, National Hansen's Disease Programs, Baton Rouge, LA, United States

OPEN ACCESS

Edited and reviewed by:

Rey Carabeo,
University of Nebraska Medical Center,
United States

*Correspondence:

Marcia Berrêdo-Pinho
mberredo@ioc.fiocruz.br

[†]These authors have contributed
equally to this work and share
first authorship

Specialty section:

This article was submitted to
Bacteria and Host,
a section of the journal
Frontiers in Cellular
and Infection Microbiology

Received: 26 August 2021

Accepted: 10 September 2021

Published: 28 September 2021

Citation:

Rosa TLSA, Marques MAM, DeBoard Z, Hutchins K, Silva CAA, Montague CR, Yuan T, Amaral JJ, Atella GC, Rosa PS, Mattos KA, VanderVen BC, Lahiri R, Sampson NS, Brennan PJ, Belisle JT, Pessolani MCV and Berrêdo-Pinho M (2021) Corrigendum: Reductive Power Generated by *Mycobacterium leprae* Through Cholesterol Oxidation Contributes to Lipid and ATP Synthesis. *Front. Cell. Infect. Microbiol.* 11:765326. doi: 10.3389/fcimb.2021.765326

Keywords: *Mycobacterium leprae*, cholesterol, cholestenone, PGL-I, PDIM, 3 β -HSD, reductive power, oxidation

A Corrigendum on

Reductive Power Generated by *Mycobacterium leprae* Through Cholesterol Oxidation Contributes to Lipid and ATP Synthesis

by Rosa TLSA, Marques MAM, DeBoard Z, Hutchins K, Silva CAA, Montague CR, Yuan T, Amaral JJ, Atella GC, Rosa PS, Mattos KA, VanderVen BC, Lahiri R, Sampson NS, Brennan PJ, Belisle JT, Pessolani MCV and Berrêdo-Pinho M (2021). *Front. Cell. Infect. Microbiol.* 11:709972. doi: 10.3389/fcimb.2021.709972

ERROR IN FIGURE/TABLE

In the original article, there was a mistake in **Figure 4**: *M. leprae* 3 β -HSD is a source of reductive power as published. Instead of original **Figure 4** image, the **Supplementary Figure 4** was duplicated and published as **Figure 4**, and the correct one is not on the published version of the article. The corrected **Figure 4**: *M. leprae* 3 β -HSD is a source of reductive power appears below. The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Copyright © 2021 Rosa, Marques, DeBoard, Hutchins, Silva, Montague, Yuan, Amaral, Atella, Rosa, Mattos, VanderVen, Lahiri, Sampson, Brennan, Belisle, Pessolani and Berrêdo-Pinho. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

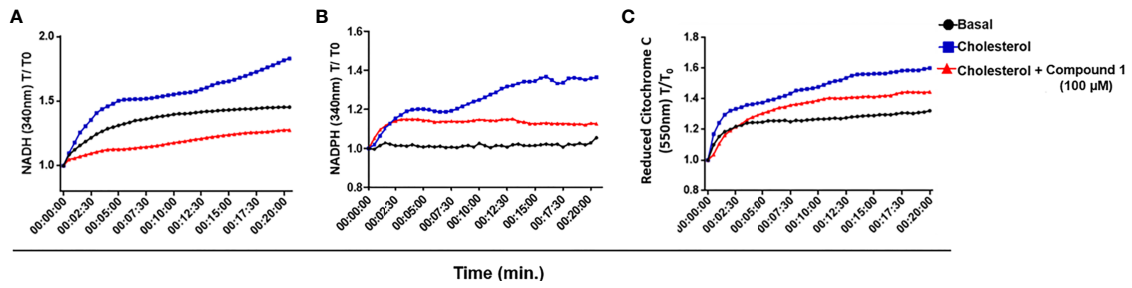


FIGURE 4 | *M. leprae* 3 β -HSD is a source of reductive power. **(A, B)** NAD⁺ and NADP⁺ reduction to NADH and NADPH, respectively, by 3 β -HSD activity was measured in a temporal kinetic curve every 30 s for 20 min at 340 nm. **(C)** Cytochrome C reduction was determined measuring the reduced form of Cytochrome C at 550 nm every 30 s for 20 min. In all conditions *M. leprae* WCL was incubated with 200 μ M cholesterol, alone (blue) or in the presence of 100 μ M compound 1 (red). A condition without cholesterol addition was also included as a control of basal levels (black). Representative of 3 independent experiments.